# networkMaryland<sup>TM</sup> Advisory Group Meeting



July 19, 2011 Annapolis, MD





# **Meeting Agenda**

- Welcome & Introductions
- New Business
- State of the Network
- Status of Project
- Other Business





#### Welcome

- Introductions
- Gregory Urban: Deputy State CIO Operations
- Guests/Visitors





#### **New Business**

- Meeting Minutes Approval
  - April 2010 : Need to approve via email.





#### **New Business**

- Internet Service Capacity
  - Upgraded capacity to 2.4 Gbps aggregate capacity
  - Working with Level3 to increase capacity
    - 1 Gbps @ Level3 McLean
    - 1 Gbps @ 300 W. Lexington
- E-Rate
  - Received SPIN
- IPv6 Support
  - Received IPv6 allocation (/32)
  - Initial application will be on SWGI





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#### **Operational Subscribers**

- 79 Operational Subscribers Two new customers
  - Frederick County Public Schools,
  - Baltimore City Police Department
- Circuit Breakdown
  - 89 ISP Circuits (+1)
  - 87 SwGI Circuits (+2)
  - 1459 Layer 2 Circuits (+54)
  - 12 VPN Subscriber Connections (+1)
  - 32 VPRN Circuits (+4)
    - 208 EE Circuits (+58)



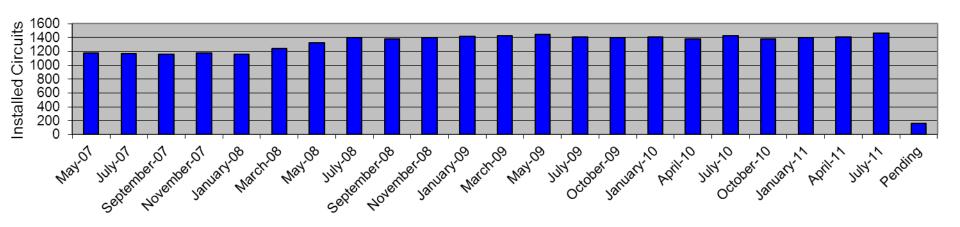
### **Subscriber Provisioning**

- 160 circuits are currently in the subscriber's testing/implementation phase
- 65 new circuits have been provisioned since the last meeting
- 80 circuits have been accepted by the subscriber since the last meeting





#### **Installed Circuits**



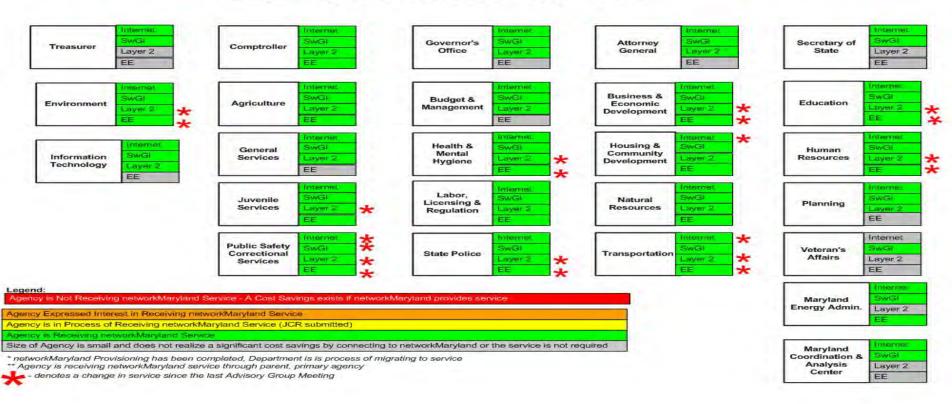
Month





#### **Executive Branch**

#### Executive Branch networkMaryland Subscribers as of July 19, 2011

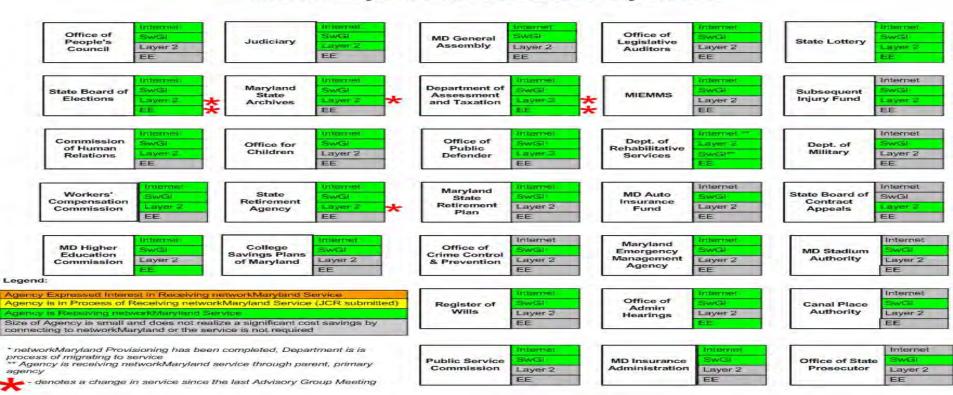






#### **Non-Executive Branch**

Non-Executive Branch networkMaryland Subscribers as of July 19, 2011

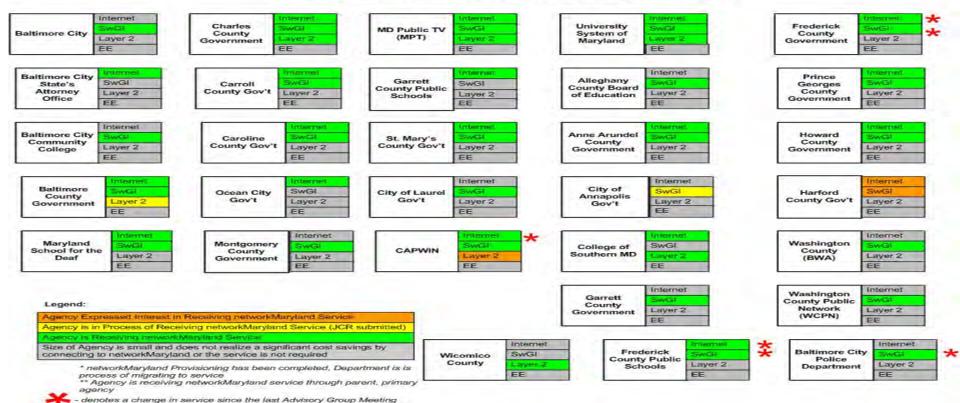






#### **Non-State Customers**

Non-State entities\Counties\Municipalities networkMaryland Subscribers as of July 19, 2011







# **New Provisioning Activity**

- Bundled Services Offering (ISP/SWGI Bundles)
  - 50 Mbps ISP / SWGI : \$15,000/year
  - 100 Mbps ISP / SWGI : \$25,000/year
  - 200 Mbps ISP / SWGI : \$45,000/year
  - 500 Mbps ISP / 100 Mbps SWGI: \$78,000/year
  - \* All services 100 Mbps or higher include a second connection to networkMaryland for redundancy. Interfaces are configured active/standby. Subscriber must be located at a networkMaryland "on-net" facility.





#### **Service Level Performance**

April 2011	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	3	58	59
Initial Response from Detection (10m, 10m, 10m)	3	58	57
	100.%	100.%	96.6%
	3	58	57
Begin Diagnosis (10m, 10m, 10m)	100.%	100.%	96.6%
Initial Notificaiton to State (10m, 10m, 10m)	100 %	100 %	100 %
# of Cases for Onsite Support with Parts	2	1	4
Onsite Support With Parts (4h, 4h, 24h)	2	1	3
	100.%	100.%	75.%
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	1	58	59
1st Escalation (20m, 4h, 24h)		58	59
	66.7%	100.%	100.%
2nd Escalation (1h, 4h, 24h)	2	58	59
	66.7%	100.%	100.%
3rd Escalation (1h, 4h, 24h)	2	58	59
	66.7%	100.%	100.%
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





#### **Service Level Performance**

May 2011	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	6	60	37
Initial Response from Detection (10m, 10m, 10m)	6	58	36
	100.%	96.7%	97.3%
	6	58	36
Begin Diagnosis (10m, 10m, 10m)	100.%	96.7%	97.3%
Initial Notificaiton to State (10m, 10m, 10m)	100 %	100 %	100 %
# of Cases for Onsite Support with Parts	0	1	1
Onsite Support With Parts (4h, 4h, 24h)	0	1	1
	N/A	100%	100%
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	6	60	37
1st Escalation (20m, 4h, 24h)	5	60	37
	83.3%	100.%	100.%
2nd Escalation (1h, 4h, 24h)	6	60	37
	100.%	100.%	100.%
3rd Escalation (1h, 4h, 24h)	6	60	37
	100.%	100.%	100.%
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





#### **Service Level Performance**

June 2011	1 - Critical	2 - High	3 - Normal
# of Cases Relating to Outages	5	68	44
Initial Response from Detection (10m, 10m, 10m)	5	67	42
	100.%	98.5%	95.5%
	5	67	42
Begin Diagnosis (10m, 10m, 10m)	100.%	98.5%	95.5%
Initial Notificaiton to State (10m, 10m, 10m)	100 %	100 %	100 %
# of Cases for Onsite Support with Parts	0	1	1
Onsite Support With Parts (4h, 4h, 24h)	0	1	1
	N/A	100%	100%
Total # of Cases Included in Escalation SLA's (Not Approved for Exemption)	5	68	44
1st Escalation (20m, 4h, 24h)	5	66	42
	100.%	97.1%	95.5%
2nd Escalation (1h, 4h, 24h)	5	66	42
	100.%	97.1%	95.5%
3rd Escalation (1h, 4h, 24h)	5	66	42
	100.%	97.1%	95.5%
Resolution Notification (10m, 10m, 10m)	100 %	100 %	100 %





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- Ethernet Everywhere
  - Each LATA has an OC-3 installed
  - We installed a second OC-3 in Baltimore
  - We have cancelled OC-3 orders that were not completed
  - We are ordering DS-3 circuits going forward instead of OC-3s
    - Verizon was unable to demonstrate operational capabilities with OC-3 circuits. They were unable to troubleshoot and resolve outages
    - networkMaryland did not take advantage of SONET capabilities due to the extremely high costs to initiate service
    - It will be easier to migrate off of the older Overture hardware (ISG-5100) to the ISG 6000s
    - Discontinue SONET grooming of T1 circuits save costs and simplify operations. We can decommission the SONET infrastructure when the backbone gets upgraded from OC-48 to 10 Gbps





- One Maryland Broadband Network
  - Received backbone hardware
  - We are able to initiate equipment purchases and construction
    - Engineering work started in all regions
    - Fiber contract awarded to OFS large order placed
    - Additional IFB for fiber released
    - Replacement fiber construction contract imminent
  - Need Pole Attachment Agreements
    - Verizon: completed
    - BGE: *completed* entities are signing individual agreements
    - Allegany Power
    - Delmarva Power





- Migration from ATM to Native IP
  - Phase VI: Last Mile (FRASI Replacement)
    - In progress
  - Phase VII: Direct ATM Connections
    - In progress: DJS; DORS; DHR; MDOT; DHMH; WCC; DPSCS
- NCRnet
  - Established physical connection at UMCP





- Network Resiliency: Separate service delivery & core
  - Dedicated routers for upstream ISP connectivity: completed
  - Move Layer 3 terminations off core routers
    - UMCP: completed
    - Baltimore Core Sites: completed
  - Migrate MANs from Layer 2 to Layer 3 connections
    - Annapolis MAN: not started
    - Baltimore MAN: not started
    - Cambridge MAN: in progress
    - Denton MAN: not started
- Backbone Upgrade to 10Gbps: August / September
- Redundant fiber connecting Baltimore POPs: on hold



- Deployment of multi-cast capabilities on SWGI
  - Final implementation of awaiting arrival of hardware
- Frederick MAN
  - Build a diverse fiber path through Frederick (no change)
- Cambridge MAN
  - District Courthouse and Dorchester County Office Building
- Initiate Eastern Shore Fiber Backbone project
  - 12 strands of fiber received from MdBC on entire shore
    - Princess Anne and Elkton next on the list



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### Fiber Projects

- Pikesville
  - Working with MSP, DPSCS, Baltimore County, and Baltimore City Police to build fiber along Reisterstown Rd near Pikesville
- Hagerstown: Fiber to DPSCS complex:
  - Part of OMBN project
- Rockville Courthouse
- Fiber documentation and mapping project
  - Level3 Backbone: To be completed by MdBC as part of Resource Share Agreement (2 years to complete)



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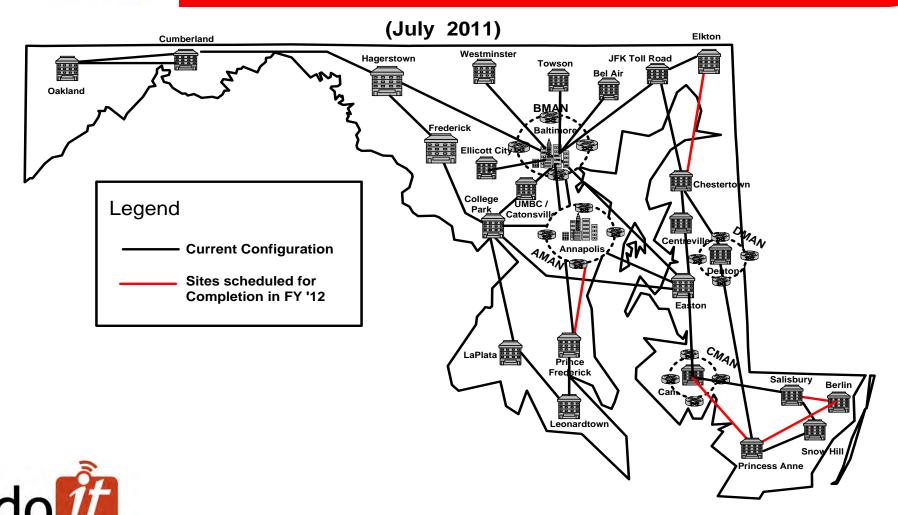
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#### **Network Overview**





#### **Other Business**

- networkMaryland<sup>TM</sup> Engineering Committee meeting
  - September 12th, 2011, 1:30 PM @ UMBC Technology Center
  - Merged with UMATS engineering meeting
- Closing Questions or Comments





# **Meeting Adjourned**



